

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

Claim 1 (original) A base for a honeycomb filter comprising:

a ceramic porous body having a number of fine pores, and

a plurality of cells separated from each other by partition walls, the cells

functioning as fluid passages;

wherein 50% pore diameter (d_{50}) of said ceramic porous body is within the range from 8.5 to 13 μm , and the partition walls separating the plurality of cells have an average surface roughness of 3.0 to 5.5 μm ,

where “50% pore diameter (d_{50})” is a pore diameter measured by a method of mercury penetration and calculated from a pressure when a cumulative volume of mercury press-fitted into the porous body is 50% of the volume of the whole pores of the porous body.

Claim 2 (cancelled)

Claim 3 (cancelled)

Claim 4 (cancelled)

Claim 5 (new) A method for producing a base for a honeycomb filter, comprising the steps of:

mixing and kneading aggregate particles and water to obtain clay,

forming the clay in a honeycomb shape having a plurality of cells separated from each other by partition walls, the cells functioning as fluid passages,

drying the clay in a honeycomb shape to obtain a honeycomb formed body, and

firing the honeycomb formed body to obtain the base for the honeycomb filter;

wherein 50% particle diameter (D_{50}) of the aggregate particles is within the range of 50 to 70 μm , and the 50% particle diameter (D_{50}) with 25% particle diameter (D_{25}), 75% particle diameter (D_{75}) and thickness (W) of the partition walls satisfies the relation of the following formulae (1) to (3):

$$0.4 \leq D_{25}/D_{50} \quad (1)$$

$$D_{75}/D_{50} \leq 1.4 \quad (2)$$

$$D_{50}/W \leq 0.12 \quad (3)$$

where “x% particle diameter (D_x)” is a particle diameter measured by a sieving method, the particle diameter being at the point where cumulative mass of powder meets x% of the whole mass on a particle size distribution curve given from a relation between a mesh diameter and mass of powder remaining on the sieve using a plurality of sieves having different normal mesh diameters.

Claim 6 (new) A honeycomb filter comprising:

a base for the honeycomb filter including a ceramic porous body having a number of fine pores, and a plurality of cells separated from each other by partition walls, the cells functioning as fluid passages;

an intermediate membrane comprising a porous body having smaller 50% pore diameter (d_{50}) than the ceramic porous body constituting said base, the intermediate membrane being formed on a surface of the partition walls separating the plurality of cells from each other of the base for the honeycomb filter, and

a filtration membrane comprising a porous body having smaller 50% pore diameter (d_{50}) than the porous body constituting the intermediate membrane, the filtration membrane being formed on a surface of the intermediate membrane,

wherein 50% pore diameter (d_{50}) of said ceramic porous body is within the range from 8.5 to 13 μm , and the partition walls separating the plurality of cells have an average surface roughness of 3.0 to 5.5 μm ,

where “50% pore diameter (d_{50})” is a pore diameter measured by a method of mercury penetration and calculated from a pressure when a cumulative volume of mercury press-fitted into the porous body is 50% of the volume of the whole pores of the porous body.